



Statement by

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Legislating to Connect America: Improving the Nation's Broadband Maps

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INTRODUCTION AND BACKGROUND

Chairman Doyle, Ranking Member Latta, and members of the Subcommittee, thank you for the opportunity to testify today to discuss broadband mapping legislation being considered by your subcommittee. I am Shirley Bloomfield, Chief Executive Officer of NTCA–The Rural Broadband Association, which represents nearly 850 rural community-based carriers in 46 states that offer advanced communications services throughout the most sparsely-populated areas of the nation.

Small, hometown-based rural telecom providers like those in NTCA’s membership connect rural Americans with the world – making every effort to deploy advanced networks that respond to consumer and business demands for cutting-edge, innovative services. These cooperatives and small, locally-owned companies serve the most rural parts of the United States, reaching areas that contain less than five percent of the U.S. population, but which are spread across approximately 35 percent of the U.S. landmass. These companies serve areas where the average density is about seven customers per square mile; to put this in context, this is roughly the average density for the entire state of Montana. The distances to cover and the low population densities present unique challenges, and underscore the critical importance of these small telecom providers that connect rural Americans with the world.

Even in the face of such challenges, however, these small, hometown businesses make every effort to deploy advanced networks that respond to consumer and business demands for cutting-edge services that position rural communities for success in a rapidly-changing world. Fixed and mobile broadband, video, and voice are among the many services that rural Americans can access thanks to our industry’s commitment to serving sparsely populated areas. The rural telecom industry has always been innovative – leading the way in converting to digital switched systems, deploying creative technological solutions to their hardest to reach customers, enabling distance learning and tele-health applications, and ultimately deploying future-proof fiber-based systems.

But there is more to do. The job is far from done. Even as we have successes to celebrate and roadmaps to look to for proven track records of success, we as a nation have much more to do both to reach unserved areas and to sustain robust and affordable rural broadband where it is available today. And, of course, a major challenge associated with supporting and making informed policy decisions regarding the deployment of broadband in rural America is determining with much greater accuracy where there is and is not service – which is why today’s hearing is so important.

“GETTING MORE GRANULAR” IS A GREAT START

More accurate identification of broadband availability is important for many different reasons. For consumers in rural areas, an accurate depiction of where broadband does or does not exist can be critical in making decisions about where to plant roots. For businesses, knowing where robust broadband is has become an increasingly important part of investment and relocation decision-making. For service providers, what the maps show in terms of broadband access can affect whether much-needed federal or state funding is available to support deployment of networks in areas where the business case otherwise does not exist. And, for policymakers, a better understanding of where broadband is or is not available is critical in making informed judgments about policy and the targeting of support.

As it stands today, the Federal Communications Commission (FCC) maintains the most accurate maps available for most areas. At the same time, broadband users, our members, other service providers, members of Congress, and even the FCC itself have all found the results of these mapping efforts frustratingly inconsistent and unreliable. In fact, we find it is not unusual for “conditions on the ground” to look very different from those depicted on national maps.

It has been well recognized for some time that the current FCC maps miss the mark because they show an entire census block as served when even just one location in that block is served – meaning that a census block becomes ineligible for support funding. In other words, perhaps the most significant problem to date has been *granularity*. This problem, unfortunately, has been persistent and frustrating for all involved. It creates “false positives” in the form of claimed coverage where none exists, especially in rural areas where large census blocks can mean a single customer served can result in unserved customers miles away looking “served” on maps.

This is more than an academic concern, because federal policy and funding decisions often turn on what the maps say in terms of availability – if an area shows as served, this can result in the denial or withdrawal of much-needed universal service support or other funding required to make the business case for investment and ongoing operation of broadband-capable networks by private operators. Of course, it is ultimately the consumers who suffer when this happens, as some may never see broadband as a result (because they already look served) or they could even lose access to broadband they have now (because support is eliminated in areas where it is needed).

Fortunately, the FCC has recently taken steps to remedy this granularity concern. Specifically, just last month the FCC adopted an order that will move away from the overly broad use of census blocks for reporting broadband coverage, and instead now will require providers to submit “shapefiles” showing where they offer broadband. To simplify, polygons essentially will enable providers to “draw lines” specifically around the areas they serve on a map, which will allow the maps to reflect actual coverage rather than sweeping entire census blocks in as “served” just because one corner of that block (or even just one house in that block) is served.

And the FCC seems unlikely to stop there in the drive to establish more granular broadband coverage maps. In its recent order, the FCC agreed with the assessment of USTelecom and NTCA that the agency “should not adopt an ‘either/or’ approach to improvements in data collection, but should both adopt shapefiles as a reporting methodology and move forward towards a uniform national dataset on top of which carriers can report broadband availability (via shapefile or other potential methods).” The FCC is therefore now seeking comment on the development and implementation of a location information into the data collection, including the use of a “location fabric” that will help to make sure the shapefiles (or other means of more granular reporting) actually translate to individual locations – and ultimately an actual identification of which locations in the United States are served or not.

BUT “GETTING MORE GRANULAR” IS HARDLY ENOUGH – THAT IS ONLY THE BEGINNING

Certainly, the fact that existing maps are based upon overly broad census block-based reporting has been a primary driver of concern and inaccuracy – and the steps that the FCC has taken and the further steps that the FCC is now considering should help to address, if not eliminate this concern about granularity. But what can often get lost in the grand debate over granularity is that *granularity and accuracy are not the same thing*. “Getting more granular” can help with accuracy, but it does not ensure it. Thus, more must be done to achieve *accuracy* beyond efforts to demand more granular service availability reporting. Here too, fortunately, the FCC has taken several steps and is looking at several more to tackle the problem more comprehensively.

With this as backdrop – what is the FCC doing, and what else should be done, to make the maps more accurate beyond making them more granular? There are a few key measures that must be adopted and implemented to achieve reliable and accurate maps.

1. Standardization Is Critical to Get an Accurate, Apples-to-Apples Depiction of Broadband Availability

As the FCC recognized in its recent order, standardization of reporting is critical. For far too long, under the existing self-reporting regime, there has been little to no direction on what providers can report for broadband coverage. Instead, all that has been required is that providers report what they advertise as available in an area. This means, for example, if a provider merely advertises a certain speed across a wide swath of rural areas – *even if it has not tested its capability to reach specific locations or to serve all of the locations in that area* – that alone is technically sufficient to justify a report of availability today. Put another way, all that really matters for purposes of current reporting is that a provider’s marketing department believes service could be provisioned to a single customer within a given area. Fortunately, the FCC has recognized the problems this can create, and is now seeking comment on the development of specific technical standards to which all providers must adhere in reporting what areas they could serve within a certain installation time frame in the ordinary course of business. This step, if implemented properly, will be a significant step forward and should produce much more reliable and consistent maps reflecting more realistic claims of coverage that can be evaluated on an “apples-to-apples” basis.

But even if the “front-end” process of reporting is improved through both greater granularity and concrete technical standards that all providers must use in developing their coverage claims, the fact is that all of the data in question will remain self-reported. Errors in filing, misapplication of the technical standards, or sheer neglect or lack of thoughtful process by a provider could all still lead to inaccuracies in the self-reported data. There will also be timing concerns – as a matter of sheer process, it will take months following reports for the FCC and the Universal Service Administrative Company (or whomever ends up administering the data collection for the FCC) to work through the data and post updated maps. Back-end validation is necessary to address this concern as well.

With these concerns in mind, these are the additional measures that should be taken to ensure the accuracy of the data collection and the resulting maps:

2. Use Crowdsourcing in a Smart Way to “Sanity Check” Self-Reported Data

For the reasons described earlier, it is not enough to engage in “front-end” measures such as more granular reporting and prescription of technical standards. Because of the self-reported nature of the data and timing considerations, there must be “back-end” validation procedures. One of these validation processes can be “crowdsourcing” – leveraging the ability of users to report that what they see on broadband coverage maps do not reflect their experience on the ground. The FCC has indicated its intent to make use of crowdsourced data and is now seeking comment on precisely how to do so.

Crowdsourcing can provide useful information in identifying problems in reported coverage, but it must be implemented thoughtfully to avoid overwhelming the system for the Commission and providers alike. If the Commission and each provider must respond on a “one-off” basis to each and every consumer question with respect to coverage, this would present a tremendous burden that may yield very little actionable information in return. Indeed, given that consumer speed tests and the like can be influenced by a variety of factors ranging from age of devices, location of equipment, and interoperability, crowdsourced information should be seen as informative but not conclusive. Crowdsourced data should therefore be a tool to detect trends in reporting problems – for example, such data could be used to see that a number of consumers in a given area are expressing concern about a given provider’s purported coverage, which could then prompt an inquiry into whether the coverage claims are accurate.

3. Pursue a Robust Challenge Process Before Using Data to Make Funding or Other Policy Decisions

There is one other “back-end” validation procedure that will be critical to making sure broadband coverage information is both granular and accurate. Specifically, the Commission should utilize a “challenge process” any time that it is preparing to make significant funding or other policy decisions based upon the then-current maps. A challenge process would enable providers and policymakers to do one last “sanity check” on the accuracy of the maps before decisions are

reached and help to correct and fill any remaining errors even after all of the other steps are taken. There are several reasons the idea of a challenge process is so important.

First, accurate mapping data can simply “make or break” the ability to deliver and sustain service in rural America – bad mapping data risks leaving rural consumers stranded without broadband. Without the ability to challenge the self-reported data that will translate into the FCC’s maps, much-needed support through the FCC’s USF program could be being denied or withdrawn in areas where that support is in fact very much needed – which then translates into rural consumers not getting served, which is the most important part of this problem. While improving the maps on the front end is undoubtedly important and has attracted most of the attention, without any ability to validate or correct on the back end the self-reported data that gets populated into these maps and used by agencies to decide where funding should go, the end user is ultimately the one who suffers. Thus, even as there is a push to improve the standards and granularity of how providers report, it is equally important not to forget the importance of making sure that there is some opportunity to “sanity check” the accuracy of the data being self-reported by providers before significant decisions are made.

Second, timing considerations warrant the use of a challenge process before the maps are used to decide where funding should or should not go. For example, as of September 2019, the most current data publicly available for broadband coverage is from reports reflecting services as of December 2017. Thus, the current maps do not reflect buildouts completed since that time or right now in progress, including those that may be occurring pursuant to governmental initiatives like the FCC’s own Universal Service Fund or United States Department of Agriculture Rural Utilities Service lending/grant programs. This means that, without some check, there is a risk of “false negatives” appearing in the maps, with areas that look unserved actually having become served in the intervening period. If these false negatives are permitted to persist, there is then the risk of overbuilding of existing networks as future funding decisions are made – including the potential for multiple governmental programs to fund duplicative and competing networks to be built through two different programs. A challenge process is needed to help to mitigate, if not eliminate, such concerns.

LATENCY AND USAGE LIMITS ARE IMPORTANT PERFORMANCE CHARACTERISTICS TO TRACK

Today’s broadband maps show speeds advertised by providers to any consumer within a given census block. Speed is certainly one important metric in determining broadband availability, but it is not the only one. Latency and usage allowances are also important factors to consider in taking stock of how consumers can use broadband; the FCC has recognized this before, making both of these performance requirements in its USF programs.

To be clear, a balance must be struck between reports that are burdensome and unwieldy and those that contain sufficient information to make a meaningful determination about broadband availability. NTCA submits that, in addition to speed, the FCC should require providers to report specifically on the latency and usage limits applicable to their broadband services, subject to the same kinds of technical standard specification that would apply to reporting on speed so that

these accurately capture the user experience in the area where coverage is claimed. Policymakers rightly tend to cite distance learning, overcoming the “homework gap,” and enabling connected care and telehealth as public policy reasons why broadband access is so important. Latency and usage limits can play a critical role in the consumer experience with these applications and many more, and it would therefore be useful and appropriate – and not represent a significant incremental burden – to collect information on these specific performance characteristics as well. The FCC should not go further at this time, however, in capturing service information, as these are truly the most essential parts of capturing service availability.

THE ROLE OF CONGRESS IN DRIVING BETTER BROADBAND MAPS

Obviously, the FCC has taken significant strides just in the last month to move toward more granular and accurate broadband availability data collections and maps – and it is seeking input now on how to implement these measures and possibly take additional steps to improve our nation’s broadband maps. But Congress has an important role here still and can and should provide vital guidance and direction to the FCC on how to proceed next.

Many different proposals are being presented now through legislation, and each of them holds promise to make the maps much better than they are today. These proposals warrant significant consideration, and they can help provide a much-needed path forward toward improved data. Among these worthwhile efforts include the bill we are discussing today, led by Reps. Loeb sack and Latta, and other mapping proposals such as legislation introduced by Reps. McMorris Rodgers and O’Halleran. We applaud the efforts of members on both sides of the aisle and both sides of Capitol Hill for their recent legislative efforts to address the broadband mapping problem.

Turning specifically to the bill sponsored by Reps. Loeb sack and Latta, there are many important provisions that could give the FCC clearer direction on where to head next and support for the efforts already underway. For example, we applaud the careful attention paid in the legislation to immediate granularity improvements in the form of shapefiles, the clear message sent with respect to the need to move toward a more granular location fabric in the future, and the explicit call for standards development and challenge processes to improve data collection on both the front end and the back end. We also think it is important that Congress provide resources toward this exercise – resources that the FCC does not itself have today – and the instruction in the legislation to the FCC to include a request for resources to promote more granular mapping and technical assistance for smaller operators in its budget submissions is a prudent and welcome way of making sure these efforts are implemented properly.

CONCLUSION

Due in large part to the leadership of this committee and subcommittee, small, rural broadband providers like those in NTCA’s membership have made great strides in reducing the digital divide in rural America. But the job is far from done, and better broadband maps can play a key role in making sure that we both build broadband where it is lacking and sustain broadband where it exists today.

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On behalf of NTCA–The Rural Broadband Association, your commitment to identifying and solving these challenges is greatly appreciated. We look forward to the continued discussion and advancement of measures such as those being considered today. Thank you for inviting me to be with you, and I look forward to your questions.